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We claim:

1. A composition comprising a substantially purified nucleotide sequence encoding a cdn.

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- 2. The composition according to claim 1 wherein the nucleotide sequence is derived from genomic DNA.
- 3. The composition according to claim 1 wherein the cdn is cdn-1.
  - 4. The composition accoding to claim 3 having the nucleotide sequence depicted in Figure 3.

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- 5. The composition according to claim 1 wherein the cdn is cdn-2.
- 6. The composition according to claim 5 20 having the nucleotide segmence depicted in Figure 5.
  - 7. A composition comprising a recombinant DNA vector encoding a cdn.
- 25 8. The composition according to claim 7 wherein the CDN is CDN-1.
  - 9. The composition according to claim 8 wherein the nucleotide sequence is depicted in Figure 3.

- 10. The composition according to claim 7 wherein the CDN is CDN-2.
- 11. The composition according to claim 10
  35 wherein the nucleotide sequence is depicted in Figure 5.

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- 12. The recombinant DNA vector according to claim 7 wherein expression of the sequence encoding the cdn under control of an inducible promoter.
- 5 13 A composition comprising a cell transfected with a recombinant DNA vector encoding a cdn.
  - 14. The composition according to claim 13 wherein the CDN-1.
  - 15. The composition according to claim 14 wherein the nucleotide sequence is depicted in Figure 3.
- 16. The composition according to claim 13

  wherein the CDN is CDN-2.
  - 17. The composition according to claim 16 wherein the nucleotide sequence is depicted in Figure 5.
- 20 18. A transpenic animal comprising a recombinant DNA vector encoding a CDN.
  - 19. The transgenic animal according to claim
    18 wherein the CDN is CDN-1.
  - 20. The transgenic animal according to claim

    19 wherein the cdn nucleotide sequence is depicted in

    Figure 3.
- 30 21. The transgenic animl according to claim 18 wherein the CDN is CDN-2.
- 22. The transgenic animal according to claim
  21 wherein the cdn nucleotide sequence is depicted in
  35 Figure 5.

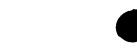
- 23 A composition comprising a substantially purified CDN protein.
- 5 24. The composition according to claim 23 wherein the CDN is CDN-1.
  - 25. The composition according to claim 24 wherein the nucleotide sequence is depicted in Figure 3.
  - 26. The composition according to claim 23 wherein the CDN is CDN-2.
- 27. The composition according to claim 26

  15 wherein the nucleotide sequence is depicted in Figure 5.
  - 28. The composition according to claim 23 wherein the proteins are expressed by recombinant DNA.
- 29. The composition according to claim 23 wherein the proteins are native proteins.
  - 30. A composition comprising the proteins according to claim 28 and a pharmaceutically acceptable buffer.
  - 31. The composition according to claim 30 wherein the proteins are present in therapeutically effective amounts.
  - 32 A composition comprising a monoclonal or polyclonal antibody which recognizes a CDN but is substantially unreactive with other members of the bcl family.

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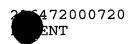
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33 A method of detecting the presence of a CDN protein in a biological sample comprising the steps of:

- a) obtaining a cell sample;
- b) lysing or permeabilizing the cells to antibodies;
- c) adding anti-cdns-specific antibodies to the cell sample;
- d) maintaining the cell sample under conditions that allow the antibodies to complex with the cdn; and
- e) detecting the antibody-cdn complexes formed.
- 34. The method according to claim 33 wherein the CDN is CDN-1.
  - 35. The method according to claim 34 wherein the nucleotide sequence is depicted in Figure 3.
  - 36. The method according to claim 33 wherein the CDN is CDN-2.
  - 37. The method according to claim 36 wherein the nucleotide sequence is depicted in Figure 5.
  - 38. The method according to claim 32 wherein the cell sample comprises T cells.
- 39 A method for detecting the expression of a cdn gene in a biological sample comprising the steps of identifying the presence of RNA encoding the cdn.





- 40. The method according to claim 39 wherein the method for identifying the cdn-1 or cdn-2 mRNA is Northern blotting.
- 5 41 A method identifying cdn mRNA comprising the steps of:
  - a) obtaining a cell sample;
  - b) obtaining RNA from the ce/1 sample;
- c) performing a polymerase chain reaction on the RNA using primers corresponding to unique regions of the cdn; and
  - d) detecting the presence of products of the polymerase chain reaction.
- 15 42 A method of modulating apoptosis-induced cell death comprising modulating the endogenous levels of a CDN.
- 43. The method according to claim 40 wherein 20 the CDN is CDN-1.
  - 44. The method according to claim 43 wherein the nucleotide sequence is depicted in Figure 3.
- 25 45. The method according to claim 42 wherein the CDN is CDN-2.
  - 46. The method according to claim 45 wherein the nucleotide sequence is depicted in Figure 5.
  - 47. The method according to claim 41 wherein the CDN is increased by modulating expression of an endogenous cdn gene.

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48. The method according to claim 46 wherein the cdn gene expressed is encoded by a recombinant gene.

- 49. The method according to claim 48 wherein expression of the gene is under the control of an inducible promoter.
- 50. The method according to claim 49 wherein the cells and transfected ex vivo and further comprising the steps of reintroducing the transfected cells into the animal.
  - 51. The method according to claim 50 wherein the cells are T lymphocytes.
  - 52. The method according to claim 49 wherein the recombinant gene is transfected into cells in vivo.
- 53 A method of treating apoptosis in a 20 patient in need thereof comprising administering a therapeutically effective amount of CDN.
  - 54. The method according to claim 53 wherein the CDN is CDN-1.
  - 55. The method according to claim 54 wherein the nucleotide sequence is depicted in Figure 3.
- 56. The method according to claim 53 wherein 30 the CDN is CDN-2.
  - 57. The method according to claim 56 wherein the nucleotide sequence is depicted in Figure 5.

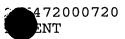
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58. The method according to claim 53 wherein the CDN is administered for any indication for which superoxide dismutase has been indicated.